

August 9th, 2011 -- by Chris Martens
Source: Playback

This is a follow-up to my recent *Playback* review of the Audeze LCD-2 planar magnetic headphone ([click here to read the review](#)). First, bit of background is in order. Just as I was putting the finishing touches on the LCD-2 review, I discovered that Audeze had, on July 3, 2011, announced a running production change in the LCD-2 model—a change that involved the introduction of what the firm terms its new “Revision 2” drivers. Rather than offer a paraphrase, let me quote the text of Audeze’s two-part announcement, which appeared in the “Blog” section of the firm’s website: www.audeze.com.

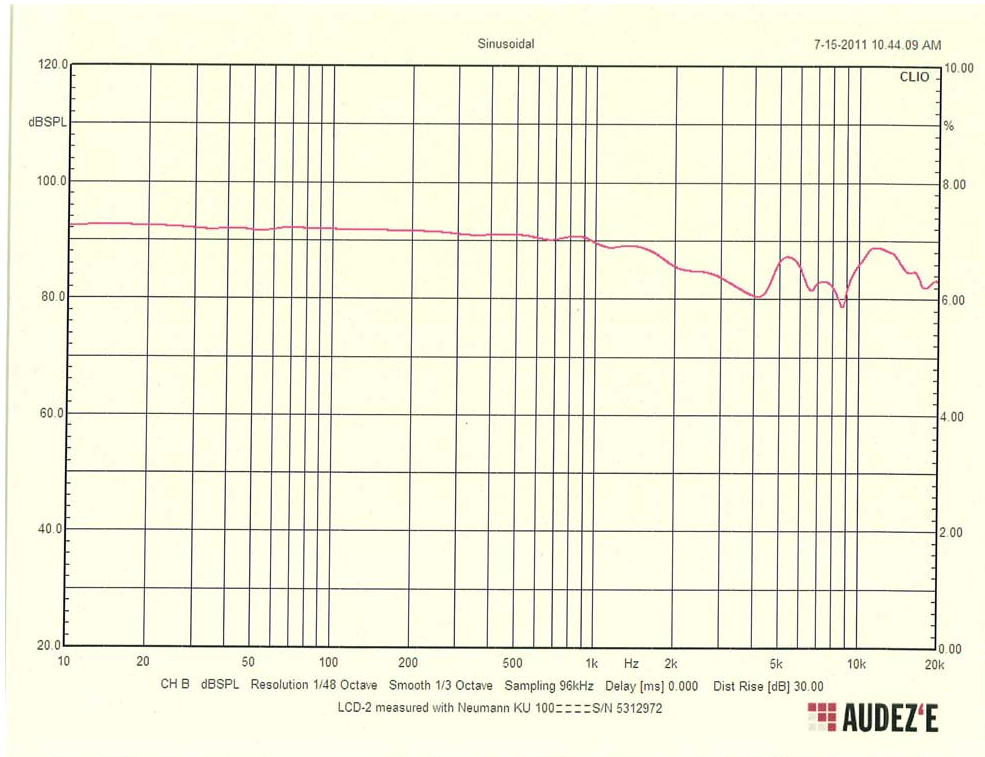


The LCD-2, showing the newly revamped Revision 2 driver.

July 3, 2011: Excerpt from Audeze’s Revision 2 Driver Announcement

“The LCD-2 headphones were introduced in Oct 2009. Even among Planar Magnetic headphones, these drivers were quite different with a unique structure and design. The LCD-2 has gone through several minor cosmetic changes, but the driver has remained unchanged so far.

Now we are introducing revision 2 of the driver. The LCD-2s as a model remain the same. Newer LCD-2 shipments from middle of June (2011) have revision 2 of the driver.



The response curve of the Revision 2 drivers.

Does the sonic signature change?

Revision 2 transducer has the same mechanical construction as original transducer, but uses newly developed, thinner and more reliable diaphragm material. Overall sound signature remains similar. Low frequencies stay flat, but are tighter and even more extended (flat to 5 Hz), midrange is smoother and more transparent, while high frequencies are more extended, detailed and more pronounced. With Rev. 2 we are addressing concerns of many customers who feel that original LCD2 has darker high frequency signature than many top of the line headphones."

July 7, 2011: Excerpt from Audeze's Follow-On Message about Revision 2 Drivers

"Several customers have emailed us asking for more details (on the new drivers). Here is some more information. We want to be open and transparent with our customers on the changes we are doing.

We have not changed the overall balance or frequency response of the headphones. We love the original LCD-2 sound signature. The new LCD-2s show a similar frequency response curve and it should, because that is the design intent. The new drivers use a thinner raw material. Thinner raw material results in less mass of the diaphragm. Less mass of diaphragm causes greater acceleration and better impulse response. Better response in driver results in higher resolution and extensions in both ends of the spectrum and better imaging. The highs are more pronounced because of greater detail. We are not boosting the high frequencies. Perhaps using the term "Darker" in the previous post conveyed the wrong information. There is a significant difference between boosting high frequencies (peaky response) and pronounced highs. As we mentioned earlier, we love the original LCD-2 sound signature and this is an improvement over it. We are not changing the nature of the headphone, but rather finessing it and this is one of the reasons we decided to stick with the LCD-2 name."

Given this turn of events, Audeze graciously offered to loan *Playback* a second set of LCD-2 headphones equipped with its new Revision 2 drivers, so that we could evaluate sonic difference for ourselves. Naturally, the arrival of new drivers brings two key questions to mind:

- What, if any, sonic differences do the Revision 2 drivers make.
 - Are those differences genuinely beneficial or do they merely represent “change for the sake of change?”
- We will tackle both questions in this follow-up review.

SONIC CHARACTER, LCD-2 WITH REVISION 2 DRIVERS

If you haven't already read our full-length review of the original LCD-2, now would probably be a good time to do so (see the link above), since my intent is to discuss the effects of Audeze's new Revision 2 drivers in the context of the core sound that I've already described for the original LCD-2.

What differences can listeners expect from Audeze's Revision 2 drivers?

Our finding was that the new drivers do change the overall sonic signature of the LCD-2 to some extent though in comparatively subtle ways (think more in terms of evolutionary rather than revolutionary changes). Some of those changes influence the response curves of the headphones in small but audible (and measurable) ways, while others change the LCD-2's ability to resolve low-level details and its ability to respond to fast-rising transient sounds in the music.



The LCD-2's new lambskin-padded headband.

First, let's discuss changes that affect the LCD-2's overall tonal balance or response curves. In my review of the original LCD-2 I wrote that, “the headphone sounds extraordinarily smooth and evenly balanced from the lowest bass notes right on up through the middle of the midrange.” That statement is still true, but with several small yet significant differences. The original LCD-2 measured virtually dead-flat from the bottom of the low end right on up to about 1kHz, above which point the response curve rolled downward until—at about 2kHz—output reached a plateau, of sorts, where upper midrange and treble frequencies were fairly evenly balanced, but shelved downward in level relative to the bass and

mids. These balanced by downward-shelved upper mids and highs lead me to say of the original headphone that some listener might find it had a “slightly ‘dark sounding’ cast.”



The LCD-2, with new ribbon cable.

With the new Revision 2 drivers in play, the LCD-2's broad region of flat response now reaches higher than it originally did (up to roughly 2kHz), with a more gradual decline in output above that point that reaches an approximate plateau at around 3kHz - 4kHz, and with noticeably more upper midrange and treble output above that point than before. These sonic changes do not alter the fundamental character of the new-generation LCD-2, which is still very much anchored by that incredibly broad, smooth, neutrally-voiced response curve from the bass region on up through the midrange. However, these changes do directly address the original LCD-2's potential problem of a slightly dark-sounding character. With current-generation LCD-2, mids seem to open up more, as do upper midrange and treble transient sounds, reverberations, and high harmonics. In short, the Revision 2 drivers make current generation LCD-2's more accurately balanced headphones overall.

But the changes don't stop with these frequency-response changes, because the new Revision 2 drivers also improve other more qualitative aspects of the LCD-2's sound. Specifically, they improve the LCD-2's already exceptional ability to resolve extremely fine, low level textural details, so that the 'phones now exhibit an even more finely focused and fine-grained sound than the original version did. Moreover, the Revision 2 drivers give the LCD-2's even faster and—where recordings so warrant—more energetic transient response than the original version could provide, which is no small improvement given how good the LCD-2 was to begin with.

Together, the qualitative and frequency response changes detailed complement one another in a synergistic way, so that the net result is an updated LCD-2 that has become, in subtle and yet pervasive ways, more accurately balanced, more transparent and more revealing than the original version—which is saying a mouthful!

Are these changes beneficial, or just “change for the sake of change?”

I found these changes to be musically valid and (almost) always beneficial, so that they unquestionably make the LCD-2 even more engaging than before, and more capable of revealing the intricacies and inner details of great recordings. The only downside I can think of, and it is the reason I used the word “almost” as a qualifier above, is that the changes also make the LCD-2 somewhat more prone to exposing the sonic flaws in not-so-good

recordings. Given the benefits the changes bring, however, this is a tradeoff I could and would readily accept. Listeners who might have felt the original LCD-2 sounded a bit too “dark” will, I think, find the new Revision 2 drivers give the LCD-2 a noticeably more balanced sound, yet without undercutting any of its inherent richness, smoothness, or midrange “magic.”

Bottom Line:

Audeze’s Revision 2 planar magnetic drivers take an already superb top-tier headphone and make it—in subtle yet significant ways—even better. Audeze has been installing Revision 2 drivers in all LCD-2 headphones built since mid-June 2011,^[1] and will continue doing so for the foreseeable future. Revision 2 driver equipped versions of the LCD-2 sell for exactly the same \$945 price as the versions equipped with the original drivers.

Along with the Revision 2 drivers, the LCD-2 carries one other running production change, which is the arrival of a new configuration for the headphone’s signal cable. Although the basic conductors used in the cable remain unchanged, the cable is now packaged in the form of a flexible ribbon cable, rather than as a comparatively stiff, round-jacketed cable as before. According to Audeze, the new cable format will soon make it possible to offer an optional cable for use with true balanced drive amplifiers. Again, this is a change for the good.

Finally, current-generation LCD-2 models offer an option that was not available on earlier production LCD-2’s; namely, a lambskin-covered headband pad that can be ordered for a \$50 up-charge fee. (The new pad looks and feels great, and perfectly matches the lambskin covers already provided for the LCD-2’s ear pads). Note: Recognizing that some listeners would prefer to avoid all use of leather, Audeze plans to offer non-leather headband and ear pad covers as an option in the future.

[1] Note: Recognizing that some customers might have purchased LCD-2 headphones during the transition period from the Revision 1 to Revision 2 drivers, Audeze has extended the following offer:

“We have received a fair amount of inquiries about the Rev2 driver. Since some of you may have missed the new revision by a few days of purchase we thought it would be the right thing to do by offering those of you who purchased the LCD-2 between June 1-30th the opportunity to ship in your headphones for a complimentary update. At the time of the update we will offer to those within the specified period of purchase the opportunity to upgrade to a leather headband for \$50.00.”